ORIGINAL

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Part 2 and Part 90 of the	)	
Commission's Rules To Allocate the	)	RM-9854
1427-1432 MHz Band for Automatic Meter	)	
Reading and Utility Telemetry Use	)	

REPLY OF ITRON, INC.

Itron, Inc. ("Itron"), by its attorneys, hereby replies to the comments on Itron's petition for rulemaking (the "Petition") requesting that the Commission amend Parts 2 and 90 of its rules to allocate the 1427-1432 MHz band, on a primary basis, for automatic meter reading ("AMR") and utility telemetry operations.

INTRODUCTION

As Itron demonstrated in its Petition, and as reflected in many of the comments filed on the Itron Petition, AMR systems support invaluable public safety and critical infrastructure services.[1] Further, the level of investment in AMR systems operating in the 1427-1432 MHz band, both by Itron and by utilities using AMR technologies, has been significant and it is increasing rapidly.[2] As UTC explained in its comments, "[u]tilities rely on [AMR] systems for efficient operation of their core businesses and have made significant investments in equipment for systems that utilize the 1427-1432 MHz band, which is uniquely suited for AMR and for which no reasonable substitute spectrum is available."[3]

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[1] E.g., Comments of United Telecom Council ("UTC") at 7 (AMR "helps customers monitor their energy consumption, and provides utilities with meter-tampering alerts, pinpoints power outages, and improves load projections").

[2] E.g., Comments of Reliant Energy Minnegasco at 2 ("Reliant Energy Minnegasco alone has about $25,000,000 invested in this technology"); Comments of EnSite, L.P. at 2 ($1.2 million invested).

[3] UTC Comments at 1.

Two parties — Final Analysis and MicroTrax — filed comments that either oppose Itron's Petition or ask that the Commission consolidate the Petition with other proceedings.[4] These parties, however, have based their arguments on misconceptions about AMR technologies, the services they provide, and the basis for Itron's Petition. Neither has offered any compelling reason to delay or derail a primary allocation in the 1427-1432 MHz band for AMR and utility telemetry operations.

DISCUSSION

I. Final Analysis Fails To Raise Any Substantial Objection To The Petition.

Final Analysis opposes the Petition on three grounds. First, Final Analysis argues that Itron is "not entitled to an expectation of primary allocation in this band by virtue of its secondary use."[5] Second, Final Analysis questions whether Itron has made a sufficient demonstration under the Commission's rules concerning its need for, and proposed use of, the requested spectrum.[6] Finally, Final Analysis claims that Itron's Petition is "overlapping and inconsistent with" the Commission's WMTS Rulemaking.[7] None of these objections has merit.

A. Itron Is Not Claiming A Right To A Primary Allocation Based On Its Current Secondary Use Of The Band.

In its Petition, Itron demonstrated that a large investment already has been made in AMR technologies operating in the 1427-1432 MHz band. As evidenced by some of the comments on the Petition, this investment has been made because the band is well suited to AMR services and because of the success of Itron's AMR technologies

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[4] Comments of Final Analysis Communications Services, Inc.; Comments of MicroTrax.

[5] Final Analysis Comments at ii.

[6] Id.

[7] Id. (citing Amendment of Parts 2 and 95 of the Commission's Rules to Create a Wireless Medical Telemetry Service, 14 FCC Rcd 16719 (1999) ("WMTS NPRM")). After comments were filed in this proceeding, the Commission released a Report and Order in the WMTS Rulemaking. WMTS, Report and Order, ET Docket No. 99-255 (rel. June 12, 2000) ("WMTS R&O"). As discussed below, the WMTS R&O further undermines the positions taken by Final Analysis in its comments in this proceeding.

operating in the band on a secondary basis. Final Analysis apparently has misunderstood the import of this showing and taken it to be a claim by Itron that it is entitled to primary status at 1427-1432 MHz by virtue of its secondary use of the band. Final Analysis has missed the point.

First, Itron noted its success in operating at 1427-1432 MHz on a secondary basis by way of demonstrating that AMR technologies can make efficient use of that band without causing harmful interference to military radio relay communications and aeronautical telemetry services, which will continue to operate in the band until 2004, or with radio astronomy operations at 1400-1427 MHz. Satellite operations like those proposed by Final Analysis, by contrast, have no such proven track record in the band.

Second, Itron noted the significant investment already made in AMR technologies operating at 1427-1432 MHz in order to illustrate the importance of these systems to the critical infrastructure industries. As Itron noted in its Petition, current estimates are that 37 percent of all utility meters will be connected to AMR networks within the next five years, with the majority being electric or gas meters in hard-to-reach rural areas.[8] These AMR systems not only will enhance the efficiency of daily utility operations, they also will dramatically improve utility system functionality and response during times of emergency, power outage, or when other circumstances exist that may pose a risk to life and public safety.[9]

Third, and finally, the existing deployment of AMR technologies at 1427-1432 MHz requires that the Commission consider the impracticality of relocating Itron and its utility customers out of the 1427-1432 MHz band. Unlike Final Analysis or any other party that be seeking access to the 1427-1432 MHz band for proposed services, Itron's AMR systems are constructed and operational in the band throughout the country. As

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[8] Petition at 6-7 (citing Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, 14 FCC Rcd 10145, Appendix G, Section B (1999)).

[9] See, e.g., Comments of Reliant Energy Minnegasco at 2 (AMR systems "speed utility responses to natural disasters or other system anomalies that may pose a threat to public health or safety").

a result, moving AMR services to another band would be costly, disruptive, and contrary to the public interest in that it would impair the operation of critical infrastructure industry systems on which the public depends.

In short, AMR systems should be made primary in the 1427-1432 MHz band not by virtue of the fact that they currently are secondary there, but because they have proven to be efficient and successful users of the band, and because relocating them is not a practical alternative.

B. Itron's Petition Adequately Demonstrates Both The Public Interest Need For A Primary AMR Allocation at 1427-1432 MHz And The Impracticality Of Displacing AMR Operations.

Final Analysis' second complaint is that Itron has not provided "all facts, views, arguments and data deemed to support the action requested."[10] To the contrary, Itron's Petition more than adequately sets forth all relevant "facts, views, arguments, and data" necessary for the Commission to continue its long history of support for the development of AMR technologies by providing AMR with a permanent home at 1427-1432 MHz.

Itron will not here reiterate the many points made in the Petition that demonstrate the need for, and the wisdom of, a primary allocation for AMR at 1427-1432 MHz. It is difficult to take seriously, however, Final Analysis' complaint that it has inadequate information regarding "transmitting power, received power, required bandwidth, modulation parameters, [and] antenna information" for Itron's systems.[11] Itron has held a license to operate AMR systems since 1993, and all of the pertinent technical data regarding those systems is a matter of public record.

Indeed, as set forth in some detail in the Petition, Itron has had a long history of working with the Commission and other executive branch agencies in the development

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[10] Final Analysis Comments at 12 (citing 47 C.F.R. 1.401(c)).

[11] Id.

of AMR technologies to promote the national interest in energy conservation and utility deregulation. Thus, unlike any hypothetical use of the band by Little LEO systems or others, virtually every aspect of Itron's operations at 1427-1432 MHz is readily available to those interested. Final Analysis' claimed lack of information concerning AMR in this band, therefore, is unfounded.

C. Itron's Petition Is Consistent With The WMTS Rulemaking.

Finally, Final Analysis objects that Itron's Petition is inconsistent with the WMTS Rulemaking and, in particular, that it has not shown proper deference to Final Analysis' own interests in the 1427-1432 MHz band. As is evident from the Commission's recently released WMTS R&O, Final Analysis' objection is baseless.

To begin with, it should come as no surprise that "Itron never claimed in [the WMTS] proceeding that it needed a primary allocation in the 1427-1432 MHz band."[12] That proceeding was not concerned with Itron's status in the band, but with the identification of spectrum in which wireless medical telemetry devices could operate on a primary basis. To the extent that Itron thought that its interests could be prejudiced by Commission's action in that docket, it so noted in its comments.[13] Had Itron gone beyond merely commenting on the proposals in the WMTS NPRM and requested a primary allocation for AMR at 1427-1432 MHz in that proceeding, its comments would have been beyond the scope of the rulemaking.

Second, since the close of the comment cycle in the WMTS Rulemaking, Itron has been working with medical telemetry representatives and now believes that the band can accommodate both AMR services and medical telemetry. In its comments on the Itron Petition, the American Hospital Association Task Force ("AHA") shared a similar view, stating that "allocating frequencies between the two services appears promising," and pledging its "commitment to work cooperatively with Itron and other AMR entities

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[12] Id. at 5.

[13] See WMTS R&O ¶ 17 (discussing Itron's initial opposition to a WMTS allocation at 1427-1432 MHz).

to develop a spectrum sharing plan for consideration by the Commission in the near future."[14]

AHA and Itron now have reached a tentative understanding and called for the Commission to allocate the 1427-1432 MHz band on a shared, co-primary basis to AMR technologies and WMTS services.[15] This type of cooperative approach to spectrum sharing is precisely what the Commission's proceedings should promote.

By way of contrast, the other services that have been proposed for the 1427-1432 MHz band are poor candidates for sharing with medical telemetry operations. In particular, AHA concluded in its comments that the "operating parameters for Little LEOs will make it very difficult, perhaps impossible, for low power WMTS devices to share spectrum with Little LEO operators."[16] Similarly, establishing an allocation for mobile or personal location services would be ill advised, considering that the very notion of creating a primary allocation for WMTS in protected spectrum was driven by the inability of terrestrial land mobile services to share spectrum with low power wireless medical telemetry operations.[17]

The Itron Petition, therefore, is in harmony with the record developed in the WMTS Rulemaking and the Commission's conclusions regarding band sharing at 1427-1432 MHz. The Commission is left with a choice between two "birds-in-the-hand" (AMR and WMTS, which may co-exist successfully at 1427-1432 MHz), and several others "in-the-bush" (satellite downlinks and land mobile or personal location services) that would like access to the band. The pressing health, safety, energy conservation,

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[14] Comments of AHA at 7.

[15] See WMTS R&O ¶ 22 & n.60 (noting possibility of sharing between WMTS and AMR systems) (citing Letter from Mary Beth Savary Taylor, Director, AHA, and Russell N. Fairbanks, Jr., Vice President and General Counsel, Itron, to Magalie R. Salas, Secretary, FCC (May 31, 2000)).

[16] WMTS NPRM, Comments of AHA at iii; id. at 9; see also WMTS R&O ¶ 21 (recognizing "that allocating the 1429-1432 MHz band for medical telemetry may limit possible use of the this band in the United States by Little Leos due to likely sharing constraints").

[17] See WMTS NPRM, 14 FCC Rcd at 16720-22; WMTS R&O ¶ 3.

and utility deregulation needs of the nation leave no room for argument as to which alternative is preferable.

II. MicroTrax Overlooks The Public Interest Considerations Warranting A Primary AMR Allocation Without Delay at 1427-1432 MHz.

MicroTrax does not oppose Itron's Petition, but it asks the Commission to "fold the instant Petition for Rulemaking into a master Notice of Proposed Rulemaking."[18] There is no benefit, however, in delaying an allocation for AMR services while the Commission resolves a broad-based spectrum proceeding.

MicroTrax essentially has conceded that its proposed services cannot share spectrum with WMTS.[19] The discrete band of spectrum at issue (1427-1432 MHz) is, as a result, effectively off-the-table as far as MicroTrax is concerned. Itron's AMR technologies, on the other hand, already are supporting mission-critical services for utilities nationwide in the 1427-1432 MHz band and have demonstrated that they can share the band with existing users, and (subject to resolution of sharing details) with WMTS services.

The Commission should not delay allocating 1427-1432 MHz spectrum for AMR services that are "on-the-ground," operational, and compatible with other uses, particularly WMTS, while it decides how to accommodate the spectrum needs of various proposed new services that are incompatible with other uses of the band and nearby bands.[20] As AHA noted when it "vigorously opposed" MicroTrax's suggestion that the spectrum under consideration in the WMTS Rulemaking should be included in a comprehensive spectrum allocation proceeding, such a proceeding would be

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[18] MicroTrax Comments at 2.

[19] In the Matter of MicroTrax, Inc., RM 9797, Petition of MicroTrax at 16 (filed Nov. 22, 1999).

[20] MicroTrax mistakenly characterizes AMR technology as "yet another in an attractive list of potential applications" for the 1427-1432 MHZ band. MicroTrax Comments at 1. In fact, as the Commission is aware, Itron already has developed equipment and systems, and is actively deploying and operating utility telemetry operations in the 1427-1432 MHz band. That is, Itron's applications are not in any sense merely "potential," but are in fact in operation providing actual services to utilities and their customers.

"unnecessarily complex, cumbersome and unduly lengthy ... causing significant delays in the allocation of any frequency band."[21]

In addition to seeking an omnibus rulemaking, MicroTrax takes issue with the amount of spectrum Itron seeks, claiming that Itron's systems should require no more than 250 kilohertz of bandwidth.[22] MicroTrax, however, has no conception of the throughput demands that are placed on an AMR system.[23] AMR technology is more sophisticated, and the market demands on the technologies are far greater, than MicroTrax has assumed. MicroTrax's analysis also is flawed because it implicitly has presumed, incorrectly, that the same 250 kilohertz could be re-used system-wide without causing co-channel interference. The laws of physics dictate otherwise.

MicroTrax ignores the market reality of meter reading in a deregulated environment. Because of utility deregulation, many customers now may buy electricity from a number of different suppliers, wholesalers, aggregators, or energy service providers. The local distribution utility (LDC), which has distribution assets connecting customers to the power grid and generating assets, is required to deliver the purchased electricity.

Contracts for third-party energy supply typically specify the amount of energy to be supplied, the price of the energy, and the timing of delivery to the customer. If the customer's usage is above or below the contracted amount, the LDC must supply the additional electricity or dissipate the excess from its distribution network. The LDC then is entitled to charge the spot price for the electricity plus some premium for customers to whom it delivers power beyond the amount contracted with the third-party supplier.

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[21] In the Matter of MicroTrax, Inc., RM 9797, Comments of AHA at 4-5 (filed Feb. 7, 2000) (emphasis original).

[22] MicroTrax Comments at 3-4.

[23] MicroTrax assumed that each metered location would transmit or receive ten 100-character messages per hour. MicroTrax Comments at 3.

In this environment, meter reading involves more than simply gathering data on system usage, and also involves the compilation of power quality information and system performance, including data on "over and under" voltage measurements, reactive power, and outages at distributed points throughout a power distribution system. This information can be critical for quality control and system safety. Because the price of electricity changes on a half-hourly basis, and because of the quantity of consumption and pricing information that must be reconciled every day, traditional utility meter reading systems are fast becoming obsolete. AMR technologies are becoming essential for delivering timely and reliable data, thereby making utility deregulation possible, lowering consumer energy prices, and increasing the efficiency of energy distribution.

Finally, MicroTrax suggests that a dedicated band for AMR may be unnecessary in light of the fact that "Metricom has developed a remote meter reading technology for operation in the 902-928 MHz band under Part 15."[24] MicroTrax neglects to mention, however, that the technology Metricom developed is 10 years old; the technology was only used in pilot installations for Southern California Edison (which funded the Metricom project); and Southern California Edison discontinued the pilot installations, replacing them with an Itron AMR system. Metricom is no longer active in the utility marketplace, and the power and bandwidth constraints of Part 15 cannot accommodate the requirements of today's AMR systems.

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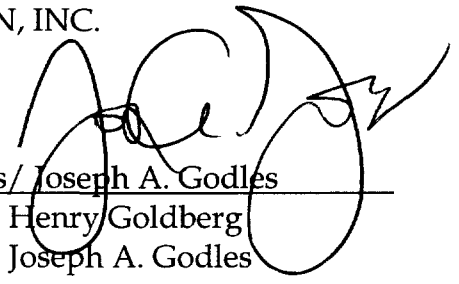
[24] MicroTrax Comments at 3.

CONCLUSION

For the reasons stated herein and in Itron's Petition, the Commission should allocate the 1427-1432 MHz band on a primary basis for AMR and utility telemetry operations.

Respectfully submitted,

ITRON, INC.



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June 22, 2000

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing Reply of Itron was sent by first-class mail, postage prepaid, this 22nd day of June, 2000, to each of the following:

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